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Environmental Protection Agency  
401 M Street., S.W.  
Washington, D.C. 20460  
Attn: Section 8(e) Coordinator (CAP Agreement)

October 15, 1992

8EHQ-92-12346

88920010555

Dear Coordinator:

8ECAP-0025

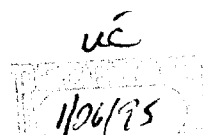
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On behalf of the Regulatee and pursuant to Unit II B.1.b. and Unit II C of the 6/28/91CAP Agreement, E.I. Du Pont de Nemours and Co. hereby submits (*in triplicate*) the attached studies. Submission of this information is voluntary and is occasioned by unilateral changes in EPA's standard as to what EPA now considers as reportable information. Regulatee's submission of information is made solely in response to the new EPA §8(e) reporting standards and is not an admission: (1) of TSCA violation or liability; (2) that Regulatee's activities with the study compounds reasonably support a conclusion of substantial health or environmental risk or (3) that the studies themselves reasonably support a conclusion of substantial health or environmental risk.

The "Reporting Guide" creates new TSCA 8(e) reporting criteria which were not previously announced by EPA in its 1978 Statement of Interpretation and Enforcement Policy, 43 Fed Reg 11110 (March 16, 1978). The "Reporting Guide states criteria which expands upon and conflicts with the 1978 Statement of Interpretation. Absent amendment of the Statement of Interpretation, the informal issuance of the "Reporting Guide" raises significant due processes issues and clouds the appropriate reporting standard by which regulated persons can assure TSCA Section 8(e) compliance.

For Regulatee,

Mark H. Christman  
Counsel  
Legal D-7158  
1007 Market Street  
Wilmington, DE 19898  
(302) 774-6443



## ATTACHMENT 1

Submission of information is made under the 6/28/91 CAP Agreement, Unit II. This submission is made voluntarily and is occasioned by recent changes in EPA's TSCA §8(e) reporting standard; such changes made, for the first time in 1991 and 1992 without prior notice and in violation of Regulatee's constitutional due process rights. Regulatee's submission of information under this changed standard is not a waiver of its due process rights; an admission of TSCA violation or liability, or an admission that Regulatee's activities with the study compounds reasonably support a conclusion of substantial risk to health or to the environment. Regulatee has historically relied in good faith upon the 1978 Statement of Interpretation and Enforcement Policy criteria for determining whether study information is reportable under TSCA §8(e), 43 Fed Reg 11110 (March 16, 1978). EPA has not, to date, amended this Statement of Interpretation.

After CAP registration, EPA provided the Regulatee the June 1, 1991 "TSCA Section 8(e) Reporting Guide". This "Guide" has been further amended by EPA, EPA letter, April 10, 1992. EPA has not indicated that the "Reporting Guide" or the April 1992 amendment supersedes the 1978 Statement of Interpretation. The "Reporting Guide" and April 1992 amendment substantively lowers the Statement of Interpretation's TSCA §8(e) reporting standard<sup>2</sup>. This is particularly troublesome as the "Reporting Guide" states criteria, applied retroactively, which expands upon and conflicts with the Statement of Interpretation.<sup>3</sup> Absent amendment of the Statement of Interpretation, the informal issuance of the "Reporting Guide" and the April 1992 amendment clouds the appropriate standard by which regulated persons must assess information for purposes of TSCA §8(e).

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<sup>2</sup>In sharp contrast to the Agency's 1977 and 1978 actions to soliciting public comment on the proposed and final §8(e) Policy, EPA has unilaterally pronounced §8(e) substantive reporting criteria in the 1991 Section 8(e) Guide without public notice and comment. See 42 Fed Reg 45362 (9/9/77), "Notification of Substantial Risk under Section 8(e): Proposed Guidance".

<sup>3</sup>A comparison of the 1978 Statement of Interpretation and the 1992 "Reporting Guide" is appended.

Throughout the CAP, EPA has mischaracterized the 1991 guidance as reflecting "longstanding" EPA policy concerning the standards by which toxicity information should be reviewed for purposes of §8(e) compliance. Regulatee recognizes that experience with the 1978 Statement of Interpretation may cause a review of its criteri. Regulatee supports and has no objection to the Agency's amending reporting criteria *provided that* such amendment is not applied to the regulated community in an unfair way. However, with the unilateral announcement of the CAP under the auspices of an OCM enforcement proceeding, EPA has wrought a terrific unfairness since much of the criteria EPA has espoused in the June 1991 Reporting Guide and in the Agency's April 2, 1992 amendment is new criteria which does not exist in the 1978 Statement of Interpretation and Enforcement Policy.

The following examples of new criteria contained in the "Reporting Guide" that is not contained in the Statement of Interpretation follow:

- o even though EPA expressly disclaims each "status report" as being preliminary evaluations that should not be regarded as final EPA policy or intent<sup>4</sup>, the "Reporting Guide" gives the "status reports" great weight as "sound and adequate basis" from which to determine mandatory reporting obligations. ("Guide" at page 20).
- o the "Reporting Guide" contains a matrix that establishes new numerical reporting "cutoff" concentrations for acute lethality information ("Guide" at p. 31). Neither this matrix nor the cutoff values therein are contained in the Statement of Interpretation. The regulated community was not made aware of these cutoff values prior to issuance of the "Reporting Guide" in June, 1991.
- o the "Reporting Guide" states new specific definitional criteria with which the Agency, for the first time, defines as 'distinguishable neurotoxicological effects'; such criteria/guidance not expressed in the 1978 Statement of Interpretation.<sup>5</sup>;
- o the "Reporting Guide" provides new review/ reporting criteria for irritation and sensitization studies; such criteria not previously found in the 1978 Statement of Interpretation/Enforcement Policy.
- o the "Reporting Guide" publicizes certain EPA Q/A criteria issued to the Monsanto Co. in 1989 which are not in the Statement of Interpretation; have never been published in the Federal Register or distributed by the EPA to the Regulatee. Such Q/A establishes new reporting criteria not previously found in the 1978 Statement of Interpretation/Enforcement Policy.

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<sup>4</sup>The 'status reports' address the significance, if any, of particular information reported to the Agency, rather than stating EPA's interpretation of §8(e) reporting criteria. In the infrequent instances in which the status reports contain discussion of reportability, the analysis is invariably quite limited, without substantial supporting scientific or legal rationale.

<sup>5</sup> See, e.g., 10/2/91 letter from Du Pont to EPA regarding the definition of 'serious and prolonged effects' as this term may relate to transient anesthetic effects observed at lethal levels; 10/1/91 letter from the American Petroleum Institute to EPA regarding clarification of the Reporting Guide criteria.

In discharging its responsibilities, an administrative agency must give the regulated community fair and adequate warning to as what constitutes noncompliance for which penalties may be assessed.

Among the myriad applications of the due process clause is the fundamental principle that statutes and regulations which purport to govern conduct must give an adequate warning of what they command or forbid.... Even a regulation which governs purely economic or commercial activities, if its violation can engender penalties, must be so framed as to provide a constitutionally adequate warning to those whose activities are governed.

Diebold, Inc. v. Marshall, 585 F.2d 1327, 1335-36 (D.C. Cir. 1978). See also, Rollins Environmental Services (NJ) Inc. v. U.S. Environmental Protection Agency, 937 F. 2d 649 (D.C. Cir. 1991).

While neither the are rules, This principle has been applied to hold that agency 'clarification', such as the Statement of Interpretation, the "Reporting Guide" nor the April 1992 amendments will not applied retroactively.

...a federal court will not retroactively apply an unforeseeable interpretation of an administrative regulation to the detriment of a regulated party on the theory that the post hoc interpretation asserted by the Agency is generally consistent with the policies underlying the Agency's regulatory program, when the semantic meaning of the regulations, as previously drafted and construed by the appropriate agency, does not support the interpretation which that agency urges upon the court.

Standard Oil Co. v. Federal Energy Administration, 453 F. Supp. 203, 240 (N.D. Ohio 1978), aff'd sub nom. Standard Oil Co. v. Department of Energy, 596 F.2d 1029 (Em. App. 1978):

The 1978 Statement of Interpretation does not provide adequate notice of, and indeed conflicts with, the Agency's current position at §8(e) requires reporting of all 'positive' toxicological findings without regard to an assessment of their relevance to human health. In accordance with the statute, EPA's 1978 Statement of Interpretation requires the regulated community to use scientific judgment to evaluate the significance of toxicological findings and to determining whether they reasonably support a conclusion of a substantial risk. Part V of the Statement of Interpretation urges persons to consider "the fact or probability" of an effect's occurrence. Similarly, the 1978 Statement of Interpretation stresses that an animal study is reportable only when "it contains reliable evidence ascribing the effect to the chemical." 43 Fed Reg. at 11112. Moreover, EPA's Statement of Interpretation defines the substantiality of risk as a function of both the seriousness of the effect and the probability of its occurrence. 43 Fed Reg 11110 (1978). Earlier Agency interpretation also emphasized the "substantial" nature of a §8(e) determination. See 42 Fed Reg 45362, 45363

(1977). [Section 8(e) findings require "extraordinary exposure to a chemical substance...which critically imperil human health or the environment"].

The recently issued "Reporting Guide" and April 1992 Amendment guidance requires reporting beyond and inconsistent with that required by the Statement of Interpretation. Given the statute and the Statement of Interpretation's explicit focus on substantial human or environmental risk, whether a substance poses a "substantial risk" of injury requires the application of scientific judgment to the available data on a case-by-case basis.

If an overall weight-of-evidence analysis indicates that this classification is unwarranted, reporting should be unnecessary under §8(e) because the available data will not "reasonably support the conclusion" that the chemical presents a substantial risk of serious adverse consequences to human health.

Neither the legislative history of §8(e) nor the plain meaning of the statute support EPA's recent lowering of the reporting threshold that TSCA §8(e) was intended to be a sweeping information gathering mechanism. In introducing the new version of the toxic substances legislation, Representative Eckhart included for the record discussion of the specific changes from the version of H. R. 10318 reported by the Consumer Protection and Finance Subcommittee in December 1975. One of these changes was to modify the standard for reporting under §8(e). The standard in the House version was changed from "causes or contributes to an unreasonable risk" to "causes or significantly contributes to a substantial risk". This particular change was one of several made in TSCA §8 to avoid placing an undue burden on the regulated community. The final changes to focus the scope of Section 8(e) were made in the version reported by the Conference Committee.

The word "substantial" means "considerable in importance, value, degree, amount or extent". Therefore, as generally understood, a "substantial risk" is one which will affect a considerable number of people or portion of the environment, will cause serious injury and is based on reasonably sound scientific analysis or data. Support for the interpretation can be found in a similar provision in the Consumer Product Safety Act. Section 15 of the CPSA defines a "substantial product hazard" to be:

"a product defect which because of the pattern of defect, the number of defective products distributed in commerce, the severity of the risk, or otherwise, creates a substantial risk of injury to the public."

Similarly, EPA has interpreted the word 'substantial' as a quantitative measurement. Thus, a 'substantial risk' is a risk that can be quantified, See, 56 Fed Reg 32292, 32297 (7/15/91). Finally, since information pertinent to the exposure of humans or the environment to chemical substances or mixtures may be obtained by EPA through Sections 8(a) and 8(d) regardless of the degree of potential risk, §8(e) has specialized function. Consequently, information subject to §8(e) reporting should be of a type which would lead a reasonable man to conclude that some type action was required immediately to prevent injury to health or the environment.

## Attachment

**Comparison:**

Reporting triggers found in the 1978 "Statement of Interpretation/ Enforcement Policy", 43 Fed Reg 11110 (3/16/78) and the June 1991 *Section 8(e) Guide*.

<b>TEST TYPE</b> _____	<b>1978 POLICY CRITERIA EXIST?</b>	<b>New 1991 GUIDE CRITERIA EXIST?</b>
<b>ACUTE LETHALITY</b>		
Oral	N}	Y}
Dermal	N}	Y}
Inhalation (Vapors)	} <sup>6</sup>	} <sup>7</sup>
aerosol	N}	Y}
dusts/ particles	N}	Y}
<b>SKIN IRRITATION</b>	N	Y <sup>8</sup>
<b>SKIN SENSITIZATION (ANIMALS)</b>	N	Y <sup>9</sup>
<b>EYE IRRITATION</b>	N	Y <sup>10</sup>
<b>SUBCHRONIC (ORAL/DERMAL/INHALATION)</b>	N	Y <sup>11</sup>
<b>REPRODUCTION STUDY</b>	N	Y <sup>12</sup>
<b>DEVELOPMENTAL TOX</b>	Y <sup>13</sup>	Y <sup>14</sup>

<sup>6</sup>43 Fed Reg at 11114, comment 14:

"This policy statements directs the reporting of specific effects when unknown to the Administrator. Many routine tests are based on a knowledge of toxicity associated with a chemical. Unknown effects occurring during such a range test may have to be reported if they are those of concern to the Agency and if the information meets the criteria set forth in Parts V and VII."

<sup>7</sup>Guide at pp.22, 29-31.

<sup>8</sup>Guide at pp-34-36.

<sup>9</sup>Guide at pp-34-36.

<sup>10</sup>Guide at pp-34-36.

<sup>11</sup>Guide at pp-22; 36-37.

<sup>12</sup>Guide at pp-22

<sup>13</sup>43 Fed Reg at 11112

"Birth Defects" listed.

<sup>14</sup>Guide at pp-22

NEUROTOXICITY	N	Y <sup>15</sup>
CARCINOGENICITY	Y <sup>16</sup>	Y <sup>17</sup>
MUTAGENICITY		
<i>In Vitro</i>	Y <sup>18</sup>	Y <sup>19</sup>
<i>In Vivo</i>	Y}	Y}
ENVIRONMENTAL		
Bioaccumulation	Y}	N
Bioconcentration	Y <sup>20</sup>	N
Oct/water Part. Coeff.	Y}	N
Acute Fish	N	N
Acute Daphnia	N	N
Subchronic Fish	N	N
Subchronic Daphnia	N	N
Chronic Fish	N	N
AVIAN		
Acute	N	N
Reproductive	N	N
Reproductive	N	N

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<sup>15</sup>Guide at pp-23; 33-34.

<sup>16</sup>43 Fed Reg at 11112

"Cancer" listed

<sup>17</sup>Guide at pp-21.

<sup>18</sup>43 Fed Reg at 11112; 11115 at Comment 15

"Mutagenicity" listed/ *in vivo* vs *in vitro* discussed; discussion of "Ames test".

<sup>19</sup>Guide at pp-23.

<sup>20</sup>43 Fed Reg at 11112; 11115 at Comment 16.



CAS #593-70-4

Chem: Chlorofluoromethane

Title: Four-hour inhalation toxicity

Date: 10/9/74

Summary of Effects: locomotive difficulties; tremors;  
not responsive to noise

Copies to: P. Sanders (1)  
C. W. Maynard (5)  
R. L. McCarthy (1)

E. I. du Pont de Nemours and Company  
Haskell Laboratory for Toxicology and Industrial Medicine

ASKELL LABORATORY REPORT NO. 607-74 MR NO. 1849-001

Material Tested	Haskell No.	Other Codes	Test Requested by
Chlorofluoromethane,	8901	Freon <sup>®</sup> 31, F-31	Paul Sanders, Freon <sup>®</sup> Products Laboratory Organic Chemicals Department Chestnut Run

#### FOUR-HOUR INHALATION TOXICITY

Procedure: Chlorofluoromethane and air, at measured rates, were mixed together and introduced into a 20-liter battery jar-exposure chamber containing groups of six ChR-CD male rats. Weights of test animals were between 240 and 285 grams. Groups were exposed to various concentrations of the test material over four-hour periods. Samples of the chamber atmosphere were taken at approximately 20-minute intervals and analyzed by gas chromatography. Survivors were kept for a two-week post-exposure observation period unless autopsied in the interim.

Results: The LC<sub>50</sub>\* for chlorofluoromethane was 4.5% with 95% Confidence Limits of 3.8% and 5.3%. Clinical signs observed during exposures included non-responsiveness to noise, uncontrolled chewing and grooming motions, labored breathing, locomotive difficulties and tremors. Tremors began at a level of about 3%. All animals lost weight at 24 hours post-exposure and most deaths after exposure occurred within 24 hours.

Chamber Concentration (% $\pm$ S.D.)	Mortality Ratio	Clinical Signs During Exposure		Post Exposure Observations	
		Tremors		Weight loss after 24 hours, 5/6 rats; lost weight for 48 hours. 1/6 rats; followed by normal weight gain.	
2.64 $\pm$ .96	0/6				
2.72 $\pm$ .16	0/6	Not responsive to noise, uncontrolled chewing and grooming motions, no tremors		Weight loss after 24 hours, all rats; followed by normal weight gain.	
3.29 $\pm$ .13	2/6	Labored breathing, not responsive to noise, tremors		1/6 died within 24 hours, 1/6 died after 48 hours, 2/6 weight loss after 24 hours, 2/6 lost weight for 48 hours followed by normal weight gain.	

\* By method of: Litchfield, J. T., Jr. and F. Wilcoxon, J. Pharmacol. & Expt'l. Therap., 96, 99 (1949).

Results: (Continued)

Chamber Concentration (% ± S.D.)	Mortality Ratio	Clinical Signs During Exposure	Post Exposure Observations
3.82 ± .12	1/6	Locomotive difficulties, not responsive to noise, tremors	1/6 died within 24 hours, 2/6 weight loss after 24 hours, 1/6 lost weight for 48 hours, 1/6 lost weight for 72 hours followed by normal gain.
4.59 ± .27	5/6	Labored breathing, tremors	5/6 died within 24 hours, 1/6 lost weight for 72 hours followed by weight gain.
5.41 ± .58	3/6	Irregular breathing, tremors decreased as rats became completely inactive, 1/6 died during exposure	1/6 died within 24 hours, 1/6 died within 48 hours, 1/6 weight loss after 24 hours, 1/6 lost weight for 48 hours, 1/6 lost weight for 72 hours followed by weight gain.
6.32 ± .78	6/6	Signs as above, 4/6 died during exposure	2/6 died within 24 hours.
8.38 ± .67	6/6	Signs as above, all died during exposure	

Pathology\*\*: Gross and histopathology were performed on 10 rats from three exposure levels of F-3i. The following organs were examined microscopically: lung, trachea, heart, liver, kidney, adrenals, spleen, pancreas, testis, epididymis, thymus, thyroid, parathyroid, esophagus, stomach, intestines, brain, eye, and bone marrow.

Chamber Concentration	No. of Rats Examined and Time of Autopsy	Results
2.72%	2 rats each at 1, 2, and 8 days post-exposure	Kidneys: Acute toxic nephrosis in all rats, decreasing in severity at 8 days; interstitial nephritis. Epididymis: Rats autopsied at 1 and 2 days showed dilated ducts and marked edema progressing to spermatoc granulemas in rats examined at 8 days post exposure. Testis: Slight edema. Liver: Acute focal necrosis decreasing from moderate at 1 day to mild at 8 days.
5.41%	2 rats at 14 days post-exposure	Kidneys: Evidence of reversal of effects from acute toxic nephrosis (epithelial regeneration of proximal tubules); marked interstitial nephritis. Epididymis and Testis: Spermatoc granulemas leading to blocking of the epididymis and degeneration of the germinal epithelium in the testis. Also slight edema of testis. Liver: No sign of focal necrosis.
8.4%	2 rats which died during exposure	No gross or histopathological lesions seen. (The usual case in peracute deaths; however, lesions could have been masked by post-mortem changes.)

\*\* Pathology performed by R. N. Sharma, D.V.M.

Summary: The LC50 for chlorofluoromethane based on a series of four-hour rat exposures is 4.5% with 95% Confidence Limits of 3.8% and 5.3%.

Chlorofluoromethane produced effects in the kidneys, epididymis, testis, and liver of rats. Although these effects occurred after exposure to high concentrations (~3-8% in air), care, including adequate ventilation, is warranted in the handling of this compound.

Report by:



David P. Kelly  
Inhalation Toxicology Section

Approved by:



Carl S. Hornberger  
Chief, Inhalation Toxicology Section

DPK:dhg

Report No. 607-74

Date Issued: October 9, 1974

N.B. E-5629, pp. 33-48.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

Mark H. Christman  
Counsel  
E. I. Du Pont De Nemours and Company  
Legal D-7010-1  
1007 Market Street  
Wilmington, Delaware 19898

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MAY 08 1995

EPA acknowledges the receipt of information submitted by your organization under Section 8(e) of the Toxic Substances Control Act (TSCA). For your reference, copies of the first page(s) of your submission(s) are enclosed and display the TSCA §8(e) Document Control Number (e.g., 8EHQ-00-0000) assigned by EPA to your submission(s). Please cite the assigned 8(e) number when submitting follow-up or supplemental information and refer to the reverse side of this page for "EPA Information Requests".

All TSCA 8(e) submissions are placed in the public files unless confidentiality is claimed according to the procedures outlined in Part X of EPA's TSCA §8(e) policy statement (43 FR 11110, March 16, 1978). Confidential submissions received pursuant to the TSCA §8(e) Compliance Audit Program (CAP) should already contain information supporting confidentiality claims. This information is required and should be submitted if not done so previously. To substantiate claims, submit responses to the questions in the enclosure "Support Information for Confidentiality Claims". This same enclosure is used to support confidentiality claims for non-CAP submissions.

Please address any further correspondence with the Agency related to this TSCA 8(e) submission to:

Document Processing Center (7407)  
Attn: TSCA Section 8(e) Coordinator  
Office of Pollution Prevention and Toxics  
U.S. Environmental Protection Agency  
Washington, D.C. 20460-0001

EPA looks forward to continued cooperation with your organization in its ongoing efforts to evaluate and manage potential risks posed by chemicals to health and the environment.

Sincerely,

*Terry R. O'Bryan*

Terry R. O'Bryan  
Risk Analysis Branch

Enclosure

12346A



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### Triage of 8(e) Submissions

Date sent to triage: 12/14/95

NON-CAP

CAP

Submission number: 12346A

TSCA Inventory:

Y

N

D

Study type (circle appropriate):

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ECO

AQUATO

Group 2 - Ernie Falke (1 copy total)

ATOX

SBTOX

SEN

w/NEUR

Group 3 - Elizabeth Margosches (1 copy each)

STOX

CTOX

EPI

RTOX

GTOX

STOX/ONCO

CTOX/ONCO

IMMUNO

CYTO

NEUR

Other (FATE, EXPO, MET, etc.):

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4/11/95

# CECATS/TRIAGE TRACKING DBASE ENTRY FORM

## CECATS DATA:

Submission # BEHQ-1092-12346

SEQ. A

TYPE INT SUPP FLWP

SUBMITTER NAME: E. I. Dupont de Nemours and Company

SUB. DATE: 10/15/92

OTS DATE: 10/27/92

CSRAD DATE: 01/26/93

## CHEMICAL NAME:

Methane, chlorofluoro  
Freon 31

## INFORMATION REQUESTED: FLWP DATE:

0501 NO INFO REQUESTED

0502 INFO REQUESTED (TECH)

0503 INFO REQUESTED (VOL ACTIONS)

0504 INFO REQUESTED (REPORTING RATIONALE)

## DISPOSITION:

0639 REFER TO CHEMICAL SCREENING

0678 CAP NOTICE

## VOLUNTARY ACTIONS:

0401 NO ACTION REPORTED

0402 STUDIES PLANNED/IN PROGRESS

0403 NOTIFICATION OF WORKING CONDITIONS

0404 LARFI/MSDS CHANGES

0405 PROCESS/HANDLING CHANGES

0406 APP/USE DISCONTINUED

0407 PRODUCTION DISCONTINUED

0408 CONFIDENTIAL

## CASE

593-70-4

11

## INFORMATION TYPE:

## P F C

0201 ONCO (HUMAN)  
0202 ONCO (ANIMAL)  
0203 CELL TRANS (IN VITRO)  
0204 MUTA (IN VITRO)  
0205 MUTA (IN VIVO)  
0206 REPRO/TERATO (HUMAN)  
0207 REPRO/TERATO (ANIMAL)  
0208 NEURO (HUMAN)  
0209 NEURO (ANIMAL)  
0210 ACUTE TOX. (HUMAN)  
0211 CHR. TOX. (HUMAN)  
0212 ACUTE TOX. (ANIMAL)  
0213 SUB ACUTE TOX (ANIMAL)  
0214 SUB CHRONIC TOX (ANIMAL)  
0215 CHRONIC TOX (ANIMAL)

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0216 EPICLIN  
0217 HUMAN EXPOS (PROD CONTAM)  
0218 HUMAN EXPOS (ACCIDENTAL)  
0219 HUMAN EXPOS (MONITORING)  
0220 ECO/AQUA TOX  
0221 ENV. OCCURENCE/FATE  
0222 EMER INCI OF ENV CONTAM  
0223 RESPONSE REQUEST DELAY  
0224 PROD/COMP/CHEM ID  
0225 REPORTING RATIONALE  
0226 CONFIDENTIAL  
0227 ALLERG (HUMAN)  
0228 ALLERG (ANIMAL)  
0229 METAB/PHARMACO (ANIMAL)  
0230 METAB/PHARMACO (HUMAN)

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## INFORMATION TYPE:

0241 IMMUNO (ANIMAL)  
0242 IMMUNO (HUMAN)  
0243 CHEM/PHYS PROP  
0244 CLASTO (IN VITRO)  
0245 CLASTO (ANIMAL)  
0246 CLASTO (HUMAN)  
0247 DNA DAM/REPAIR  
0248 PRODUCE/PROC  
0251 MSDS  
0259 OTHER

## P F C

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## TRIAGE DATE:

## NON-CBI INVENTORY

YES

CAS SR

NO

IN IT RATION

## ONGOING REVIEW

YES (DROP/REFER)

NO (CONTINUE)

REFER

## SPECIES

RAT

## TOXICOLOGICAL CONCERN:

LOW

MED

HIGH

## USE:

## PRODUCTION:

12346A

L

Acute inhalation toxicity in rats is of low concern. Single 4-hour inhalation exposures to male ChR-CD rats (6/group) at levels of 26,400, 27,200, 32,900, 38,200, 45,900, 54,100, 63,200, and 83,800 ppm were lethal (0/6, 0/6, 2/6, 1/6, 5/6, 3/6, 6/6, and 6/6, respectively). The LD<sub>50</sub> was 45,000 ppm. Clinical signs included tremors, no noise response, labored/irregular breathing, locomotive difficulties, and inactivity. Necropsy revealed: acute toxic nephrosis and spermatic granulomas.